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Spirit of cooperation

Recovery efforts go above and beyond

Serving as one of NASA's senior leads in Space Shuttle Columbia recovery efforts at Hemphill, Texas (one of four recovery sites near Lufkin), has given Stennis Space Center Deputy Director Michael Rudolphi a new appreciation for the capabilities and spirit of cooperation among the more than 90 federal, state, local, volunteer and private agencies involved in the effort.

The search is nearly complete, and the intent from now through early May is to complete the search, resolve all reports, and transfer the activities to Johnson Space Center.

Also, Rudolphi said, Administrator Sean O'Keefe has emphasized NASA will show its appreciation to the towns that so graciously allowed the recovery efforts to disrupt their routines and to all they could to help.

Rudolphi said he was moved to see the people in the community – people under no obligation to provide any assistance – be so willing to go to extraordinary lengths to help in any way they could.

He also has been amazed at how quickly the recovery efforts got under way. When President George W. Bush declared the Columbia debris path a federal disaster area, he established the foundation for the recovery process, making

NASA the lead agency for the investigation and FEMA the lead agency for response and recovery operations.

FEMA's involvement allowed numerous other agencies to come on board, all of which had begun a coordinated effort with logistics well under way when Rudolphi arrived 10 days after the accident for his first tour of duty.

"In the first couple of days in that little town of Hemphill, Texas, a town of about 1,100 people, the Texas Forestry Service – just one of the agencies involved – had established a camp with as much capability and infrastructure as the town had. They brought in caterers, a hygiene facility, medical facilities, a laundry and a way for workers to contact their families back home," he said. "Within two or three days, when about 700 ground searchers arrived, all their human needs were accommodated."

Meanwhile, said Rudolphi, Dave Whittle, who headed the search effort for the Columbia Accident Investigation Board (CAIB), was identifying where the ground search should focus. "We defined corridors about 200 miles long and about 10 miles wide. We were going to walk the middle four miles of that, about 500,000 acres," said Rudolphi. "In just a day or so, we had maps generated and were using GPS equipment to get the ground search started. Within the next week, we had four more camps built."

The camps accommodated ground searchers; some 500 Environmental Protection Agency (EPA) members, who analyzed every piece of debris to ensure it was decontaminated and cleared to be taken to collection sites; and other NASA employees including fire protection crews and people who could identify debris pieces. "In about seven days, we had about 6,000 forest service workers, about 500 EPA and 300 NASA people all in the field working together," said Rudolphi.



A job well done

NASA's Dr. David Powe, right, manager of the Earth Science Applications (ESA) Directorate at Stennis, gives NASA pins to workers participating in Columbia recovery efforts as a token of appreciation for their hard work. Powe and the ESA management team traveled to Texas to determine how the directorate can be of further assistance to recovery efforts as the search for debris moves west. Stennis' ESA team has played an essential role in recovery efforts through such activities as coordinating remote sensing of debris fields and creating map products.



During a previous trip to Hemphill, Texas, Stennis Space Center Deputy Director Michael Rudolphi, left, talks with personnel taking part in the Columbia debris search. Rudolphi has returned to Texas to lead the closeout of recovery efforts.

With the ground search under way, Rudolphi said the effort was ready to include an air search to widen the scope of the area covered. Within three days, 34 helicopters were in the air, searching at about tree level and covering twice the area the ground search was capable of covering.

The massive recovery effort involved not only coordinating air, ground and water searches, but also investigating every report of a debris discovery. "We had 169 counties in Texas, many in Louisiana, and many other states with reports of debris finds," said Rudolphi. "We are reviewing every report and resolving it before we close the investigation in any county." Nearly all of the approximately 1,500 reports have been investigated and resolved.

Rudolphi said the process has been a model for how agencies can work together in a concerted effort.

See related story about the communities' support of the effort, Page 4.

From the desk of Bill Parsons

Stennis Space Center Director



It has been quite a busy time at Stennis. We recently hosted the NASA Advisory Council (NAC) along with our administrator and deputy administrator. This event allowed us to reach a wide audience that normally does not get exposed to Stennis, show them our NASA mission and let them get a flavor of our federal and commercial city. I would like to express my appreciation to Boeing-Rocketdyne for a perfect Space Shuttle Main Engine test firing. The NAC and our senior management team from Headquarters also participated in our annual crawfish boil. Once again, everyone involved did a great job, and all had a great time.

As you know, we continue to support the recovery of debris in the Lufkin, Texas, area. Earth Science Applications Directorate continues to be a valuable asset in this operation, and I continue to get reports from Lufkin and throughout NASA regarding the professional and highly technical capabilities of the team we have assembled. My hat is off to all involved. In addition to our Earth Science Applications Directorate, our law office has been deeply involved, with two of our finest spending extended time in Lufkin. We also have human

As we continue the investigation of the Columbia disaster, we also have to deal with our nation at war in Iraq. Both of these events are impacting all of us. We must continue to stay focused on our jobs here at home while our hearts are with our soldiers, seamen, airmen and Marines.

resources and the Space Flight Awareness point of contact working with the Space Flight Awareness crew in the East Texas area. Also, public affairs was involved early on. We even had one of our secretaries provide administrative support. Of course, Stennis' deputy director, Mike Rudolphi,

has been the senior person on station at Lufkin a number of times, and he has returned for another couple of weeks. To say the least, I am proud of the effort our Stennis employees have put forward and the value we have brought to the process. Thank you.

As we continue the investigation of the Columbia disaster, we also have to deal with our nation at war in Iraq. Both of these events are impacting all of us. We must continue to stay focused on our jobs here at home while our hearts are with our soldiers, seamen, airmen and Marines. Some of us have loved ones, friends, and/or acquaintances in this war. God bless the leaders of our nation and all the servicemen in harm's way.

NASA program focuses on training

More than 200 people at Stennis Space Center will be trained in at least some aspect of the Integrated Financial Management Program (IFMP) between now and "Go Live" on June 23.

While most of the training will go to members of the financial management community, government purchase cardholders and people who submit purchase requisitions are the largest group of students.

Training for IFMP is organized into a three-tiered approach. Every user will have to take the Web-based navigation class to learn to get around in the new software. Following that are a range of additional Web-based courses that users will take at their desks.

Finally, for the serious users, there are a range of instructor-led classes. These range

from two to four hours and go really in-depth into the new system.

The instructors for these classes are volunteers from other centers who have become experts and, in some cases, have been instructors at other centers as well. Many of them are visiting us for the first time, so be sure to give them a big SSC welcome.

The training classes are soaking up just about every available spot at SSC, but most of the classes will be held in buildings 1210 and 1100. The training schedule and the classes assigned to each employee are available on SSC's IFMP Web site. Because of the difficulty in scheduling instructors, rooms, machines and students, the schedule has changed. So check it out and be in the right place at the right time.

NEWSCLIPS

Peril in Peru? NASA takes a look at menacing glacier. An Earth-monitoring instrument aboard NASA's Terra satellite is keeping a close eye on a potential glacial disaster in the making in the Peruvian Andes.

Data from NASA's Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) is assisting Peruvian government officials and geologists in monitoring a glacier that feeds a lake high above the city of Huaraz, 270 kilometers (168 miles) north of Lima.

An ominous crack has developed in the glacier. Should the large glacier chunk break off and fall into the lake, the ensuing flood could hurtle down the valleys below, reaching Huaraz and its population of 60,000 in less than 15 minutes.

"Remote sensing instruments like ASTER can serve a vital role in mountain hazard management and disaster mapping by providing rapid access to data, even in regions not easily accessible by humans," explained Dr. Michael Abrams, associate ASTER team leader at NASA's Jet Propulsion Laboratory, Pasadena, Calif.

NASA rovers slated to examine two intriguing sites on Mars. NASA has chosen two scientifically compelling landing sites for twin robotic rovers to explore the surface of Mars early next year.

Each Mars Exploration Rover will examine its landing site for geological evidence of past liquid water activity and past environmental conditions hospitable to life.

"Landing on Mars is very difficult, and it's harder on some parts of the planet than others," said Dr. Ed Weiler, NASA associate administrator for space science in Washington. "In choosing where to go, we need to balance science value with engineering safety considerations at the landing sites. The sites we have chosen provide such balance."

The rovers are scheduled for launch June 6 and June 25.

Researchers encouraged by collision-avoidance test results. NASA and industry researchers are increasingly confident a pilot in a remote ground station can safely detect and avoid collisions between an Unmanned Aerial Vehicle (UAV) and other aircraft.

The latest round of flight tests took place April 1-4 near Mojave, Calif.

The Proteus aircraft, built by Scaled Composites of Mojave, with safety pilots on board but controlled from the ground like a true UAV, was repeatedly directed away from conflicting flight paths.

In all 20 scenarios flown, the Proteus ground operator was able to detect the presence of other aircraft that posed the potential for collisions, maneuvering the test aircraft to keep the intruding aircraft from entering a 500-foot bubble of safe airspace surrounding Proteus.

Space Flight Awareness



We Have Friends In High Places

International Space Station Status Report

There are two more occupants of the International Space Station (ISS) since the launch of a Russian Soyuz TMA-2 spacecraft April 26. The newcomers, veteran Russian cosmonaut Yuri Malenchenko (Col., Russian Air Force) and veteran NASA astronaut Ed Lu, are the Expedition 7 crew.

Expedition 6 Commander Ken Bowersox, Flight Engineer Nikolai Budarin and NASA Space Station Science Officer Don Pettit will return to Earth aboard the Soyuz TMA-1 craft in May. They were launched Nov. 23, 2002, and have been aboard the ISS since Nov. 25. They were originally scheduled to return in March aboard the Space Shuttle Atlantis during the STS-114 mission.

Malenchenko commanded a four-month mission aboard the Mir Space Station in 1994 and participated in the STS-106 mission aboard Atlantis in 2000 to prepare the ISS for permanent human occupancy.

Lu is a veteran of two shuttle flights. In 1997, he flew aboard Atlantis to the Mir Space Station on the STS-84 mission to exchange U.S. residents on the Russian complex, and he joined Malenchenko on STS-106.

Malenchenko and Lu will continue to operate the science payloads already on board and maintain the ISS.

Columbia memorial planned

A memorial to the Space Shuttle Columbia crew will be constructed in Arlington National Cemetery, just outside Washington, D.C., according to legislation signed by President George W. Bush on April 16. Columbia and its crew was lost Feb. 1, 2003, during re-entry.

"The actions by the Congress and the President to honor the crew of the Space Shuttle Columbia is heart-felt by the entire NASA family and by the entire country," said NASA Administrator Sean O'Keefe.

The Columbia Orbiter Memorial Act authorizes up to \$500,000 of previously appropriated funds for the memorial.

The Act also allows NASA to collect gifts and donations for the memorial over the next five years.

Space Launch Initiative contract awarded

NASA recently announced that approximately \$135 million will be awarded to three competing contractor teams to continue support of NASA's Orbital Space Plane program under the Space Launch Initiative (SLI) to provide crew rescue-and-transfer capabilities to the International Space Station (ISS).



This architectural concept of the Orbital Space Plane is one of several being developed by contractor teams.

The awards are a part of a contract modification of a Cycle 1 SLI solicitation originally awarded in May 2001. This modification extends existing contracts through July 2004.

The Orbital Space Plane program will provide the capability for crew rescue by 2010 and the capability for crews to transfer to and from the ISS by 2012.

The three system design contractor teams – The Boeing Co. of Seal Beach, Calif.; Lockheed Martin Corp. of Denver; and a team including Orbital Sciences Corp. of Dulles, Va., and Northrop Grumman of El Segundo, Calif. – will each receive approximately \$45 million to design potential candidates for the system, including the Orbital Space Plane vehicle or vehicles, ground operations and all supporting technologies needed to conduct a mission to and from the ISS.

The contract modification includes work to develop system specifications, including systems analysis, trade studies, and concept feasibility in preparation for NASA's Orbital Space Plane Program's Systems Requirements Review.

The review, scheduled for October 2003, will evaluate the concept design based on guidelines that lay out the foundation and top-

level needs of the system. The review will also set Level 2 requirements that will further narrow the scope of the system design, including requirements for crew safety, cost, and interfacing with launch vehicles and the ISS.

Once the Systems Requirements Review is complete, the contractors will begin the next phase, which includes trade studies, development of a conceptual design that meets Level 2 requirements and supporting analysis. The next step is NASA's Systems Design Review, scheduled for April 2004. The Systems Design Review is a NASA-led review to validate the Level 2 requirements and determine Level 3 requirements to more precisely define the needs and specifications of the system. A full-scale development decision by NASA is expected in the fall of 2004.

For more information on the Orbital Space Plane, go to <http://www.slinews.com>.

Alabama students talk to space

Students from the Mobile, Ala., area interviewed the Expedition 6 crew aboard the International Space Station during an event at the Gulf Coast Exploreum Science Center in Mobile on April 22. The 15 sixth- to eighth-graders visited Stennis Space Center on April 13 in preparation for the event.



Above, from left, Expedition 6 crewmembers, Cosmonaut Nikolai Budarin and astronauts Ken Bowersox and Don Pettit.



At left, Meredith Magee of St. Paul's Episcopal School and Scott Gignilliat of Hillsdale Middle School await their turns to interview the Expedition 6 crew.

More deer means road danger

Stennis Space Center (SSC) is beautiful when deer are grazing along the roadways and open expanses, but the sight is also a sign to exercise caution.

Management of the deer population and its habitat is a major concern and component of the SSC Natural Resource Management Team (NRMT), which is part of the NASA Environmental Office.

In an effort to help SSC become a better steward and manager of its environment, the NRMT combines several disciplines and specialties including, among others, forestry and wildlife management, animal control issues, and habitat development and enhancement.

After 20 years of management, a healthy forest has increased deer habitat through the thinning of wooded areas, and the food source has increased dramatically. A lack of hunting and natural predators has resulted in an overabundance of deer. Deer feeders positioned throughout Stennis by well-intended nature enthusiasts have also contributed to the problem.

Dr. Jenne Jones, certified wildlife biologist at Mississippi State University, has been working with the Environmental Office for the past two years studying the Stennis deer herd. She has insight into such factors as feeding patterns, numbers and herd locations. Jones will make recommendations to Stennis for management of our deer herd that will become a part of the SSC Integrated Natural Resources Management Plan.

Jones' advice is to remove deer feeders on site. Feeders contribute to drawing the herd into populated areas, to deer/vehicle accidents, and to deer losing their fear of humans. But the most serious effect could be the spread of disease within the herd.

Several diseases, including blue tongue and anthrax exist within the



Deer crossing: Heed the warning

Collision rate with deer high at Stennis – Tips to avoid accidents

- Obey the speed limit – or go slower than the limit, particularly at night in areas with deer crossing signs.
 - Use caution when passing through areas marked with deer crossing signs. These signs are placed in areas that have shown a high incidence of deer/vehicle collisions.
 - Be alert. Deer are most active at dawn and dusk, when commuter traffic is high and visibility is poor. Always wear your seat belt.
 - When you see one deer, look for others. Deer seldom travel alone, and chances are if you see one deer crossing a road, others are nearby.
 - Be especially cautious during seasons of high deer activity: October to January, and June.
 - If you see deer at a location one day, there is a great possibility they will cross in the same area again. Stay alert when driving in the area.
 - Don't swerve to avoid a collision with a deer. Simply apply your brakes.
 - Scan the roadside for deer. If a deer is grazing along the road, the animal could easily dart into traffic. Slow down.
- Remember, you are the best deer detector. Be alert for deer on all Stennis roads.

southern deer population. The most serious is chronic wasting disease, which is rapidly spreading in the northern United States and is predicted to eventually reach the South. This disease is capable of wiping out the entire Stennis herd.

In addition to working with Jones, the Environmental Office is getting help from the Mississippi Department of Wildlife, Fisheries & Parks (MDWFP) to assist in wildlife management. Through a long-term agreement, Stennis will benefit through MDWFP herd-health checks and advice on management strategies.

In action and words, communities support space program

When Stennis Space Center Deputy Director Michael Rudolphi arrived in Hemphill, Texas, 10 days after the Space Shuttle Columbia accident to lead recovery efforts there, he was overwhelmed to find a community willing to do whatever was needed to help.

"Before the camp was established, the first folks there relied solely on the community for support," said Rudolphi. "One lady organized a group of about 16 people who arranged to have food donated, and cooked about 4,000 meals a day, every day, for about two weeks. They did this without being asked, and when we tried to thank them, they thanked us for being there."

He said the NASA crew brought photographs to give away, and every person who wanted a photo also wanted autographs and pictures made with the NASA people there.

Rudolphi said he was handing out NASA logos, and with a few

more to give away, he approached a van delivering a new crew of searchers. "I turned, and standing right behind me was my niece with the forestry service from Missoula, Montana. I had no idea she was coming," he said.

The experience has fortified Rudolphi's belief that NASA should resume flight as soon as possible.

"We owe it those seven Columbia crewmembers. We owe it to Columbia, which has taken on a spirit of its own," he said. "If you

believe that the American space program is on soft ground, then you have not been to Hemphill, Texas, and listened to those people talk about their confidence in what we do and the need to continue with exploration."



Speakers Bureau awards

Stennis Space Center Director Bill Parsons presented awards to Speaker Bureau members April 15 in appreciation for their telling the NASA story to the surrounding communities. From left are David Carstens, NASA; John Bailey, NASA; Dr. Dewey Herring, NASA; Kirk Sharp, NASA; Alan Mather, NASA; Dave Golden, NASA; Elizabeth Messer, NASA; Karma Snyder, NASA; Lisa Subat, Lockheed Martin Space Operations (LMSO); Parsons; Judi Summers, LMSO; Mark Moody, NASA; Lane Cooksey, NASA; Bo Clarke, NASA; Dr. Robert Field, NASA; Dave Geiger, Boeing; and Scott Langlois, Mississippi Space Services.

Homeland Security Act affects Freedom to Manage initiative

The Homeland Security Act of 2002 provides two flexibilities that promise to speed the hiring process. These changes have a direct impact on NASA's Freedom to Manage (F2M) initiative.

The first creates a simplified process for the rating and ranking part of the hiring cycle, using broad categories of ratings instead of strict numerical ratings. Officials will be able to pick from anyone in the highest category instead of being limited to selecting in numerical order.

The second provision allows the use of direct-hire authority when a severe shortage of candidates or other critical circumstances exist.



Stennis Space Center Director Bill Parsons, left, and F2M Chairman Courtney Stadd take questions from Stennis employees during a F2M Town Hall meeting last year. The meeting was part of a series the F2M Task Force held at each center to help identify barriers to NASA's performance.

The Homeland Security Act of 2002 also provides permanent authority to agencies in offering voluntary separation incentives, or buyouts, to employees without the restrictions that limited their use in the past. The Act also expands the authority for the use of early retirements to restructure the workforce.

The FY 2003 Omnibus Appropriations Act includes NASA Enhanced Use Leasing (EUL) authority allowing the agency to undertake demonstration projects at two centers, under which they may retain all revenue from outleases, and to deposit the revenue into a capital asset account where the funds do not expire.

The agency may use the revenue for real property maintenance, repair or improvements. NASA must currently forward any outlease revenue above NASA's costs to the general treasury.

The Act also allows acceptance of services-in-kind in lieu of cash for an outlease, including the maintenance, construction, modification or improvement of real property.

A plan for implementing the demonstration projects must be submitted to Congress before the first EUL lease can be entered into. HQ Code JX is the lead for developing the plan, developing a process to select the two centers and providing direction and oversight for EUL agreements.

The FY 2003 Omnibus Appropriations Act also authorizes NASA to implement a Working Capital Fund (WCF) beginning in FY 2004.

The purpose of a WCF is to promote economy, efficiency and accountability for selected administrative and reimbursable activities. A WCF operates under a seller-buyer, business-like basis, charging fully reimbursable rates.

NASA enterprises and centers will be canvassed for suggestions.

The FY 2003 Omnibus Appropriations Act eliminated the limitation of appropriations for travel to the amounts included in the agency's annual budget. This allowed potential reprogramming of other existing funds into travel funds. However, Congressional approval is required if the amount is greater than \$500,000.

Organizations should continue managing travel funds effectively. NASA will be required to account for travel expenditures in excess of budget requests to the Committees on Appropriations.

The agency will be expected to adjust future budget requests for travel to accurately reflect any increase in funding required for travel.



Astronaut shares space experiences during Take Our Daughters and Sons to Work Day

NASA Astronaut Dr. Linda Godwin signs autographs for children during Stennis Space Center's Take Our Daughters and Sons to Work Day, held April 24. Godwin talked to the sons and daughters of NASA and contractor employees about her space flight experience and being an astronaut. Godwin has logged more than 38 days in space, including 10 hours in two spacewalks. Godwin also joined the children to watch several scientific demonstrations, which were part of the day's activities. Afternoon sessions included demonstrations of cryogenics, a hydrogen fire imager, pocket rockets and acid rain. The event was coordinated by NASA's Federal Women's Program at Stennis. The event has been held at Stennis for more than 10 years, but this was the first year sons also took part.



Scientist presents seminar at Stennis

Scientist Lord Julian Hunt of the United Kingdom recently visited the University of Southern Mississippi's Center for Higher Learning (CHL) to present a seminar on natural disaster forecasting. He also discussed possible collaborative research efforts with scientists at SSC. Pictured, from left, are Dr. Robert Lockhead, dean of science and technology; Jerry Boatman, CHL Policy Board member; Dr. Joseph Kolibal, director of scientific computing; Hunt, professor at University College in London; Dr. Vernon Asper, dean of marine sciences; Dr. Tim Hudson, USM Gulf Coast provost; Dr. Peter Ranelli, CHL director; and Dr. Shahr Sajjadi, CHL senior scientist.

Successful Hubble servicing missions illustrate One NASA advantages

NASA works best when it works together. This One NASA philosophy emphasizes enhanced coordination, collaboration and communication among all agency facilities to reach common goals. It also is the motto of a highly visible, productive, efficient, cross-enterprise, inter-center group serving as an excellent example of this concept's success for more than a decade – the Hubble Space Telescope (HST) team.

Since 1993, the HST team has successfully conducted four servicing missions and a technology demonstration flight. The servicing, repair and upgrade of Hubble incorporates the Space Shuttle and Extra Vehicular Activities (EVAs) to accomplish some of NASA's important program objectives.

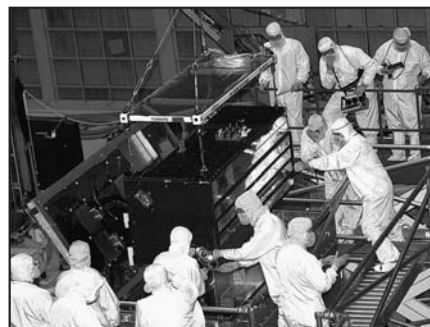
According to Frank Cepollina, deputy associate director for the HST Development Office, "All elements of the agency are involved in HST and must work together on each mission – astronauts, scientists, engineers, EVA crew, hardware developers, launch teams, and finally, integrated operations teams. From a center perspective, GSFC, JSC, KSC, MSFC, and Glenn all come together to provide the best expertise, supported by contractors at every center, as well as international partners. NASA works best when it works together."

Although the HST design was integrated with the shuttle design and capability since its original

concept, the team that was formed in the early days of HST development and deployment initially did not continue into the servicing mission.

When the high visibility of Hubble's original optical problem caused concern at upper levels of NASA, multiple external review committees convened. One meeting produced the inevitable, "Who's in charge?" question, to which the top officials from every center and program immediately stood up to claim responsibility. A mission director was appointed to arbitrate conflicts. Although this appointment satisfied the formal authority requirement, the real solution was closer to the engineers, planners, operators and flight crew.

Due to world-class scientific results by HST, motivation for mission success and safety is so high, team participants exercise all capabilities available without regard for center or contractor affiliation. Team members maintain relationships with other NASA centers, then come together in inter-center coordination meetings and working groups. Within these joint sessions, the respective roles of participants are consistent with formal arrangements defined by controlling authorities. Specific participations and allocations of responsibilities are jointly arranged according to practical considerations of resources, facilities, talent and expertise.



Cepollina puts it this way: "When good engineers work together one-on-one with each other, no matter what center or organization they represent, hidden agendas disappear, and the outcome gives rise to only the technical merits of the issues."

A major benefit of a One NASA team is shared technology, such as development of crew aids and tools. Power tools originally developed for Hubble are routinely used for the International Space Station.

The HST inter-center teams have served as an example of One NASA in action for more than 10 years. To view the team's accomplishments, visit the Archive of Hubble Pictures on the Space Telescope Science Institute website at <http://www.stsci.edu>.



In command of fun

Students from East Hancock Elementary School visited Stennis Space Center on April 4 to tour America's largest rocket test complex, see a Space Shuttle Main Engine test and visit StenniSphere. At right, students try their hands at piloting the Space Shuttle in the shuttle cockpit simulator.



Symphony goes 'spacey'

The StenniSphere mascot, a 14-foot-tall astronaut, greeted attendees of 'Journey to the Stars,' a Gulf Coast Symphony Orchestra concert with space-themed music, held April 5 at the Beau Rivage Resort in Biloxi. The event, which included appearances by Star Wars characters and E.T. the Extraterrestrial, was a benefit for the symphony orchestra. Stennis Space Center, an event sponsor, also provided an exhibit of the Orbital Space Plane, which depicts NASA's next generation of space vehicles.



Learning the benefits of NASA technology

Gautier High School students visiting StenniSphere on April 11 explore 'From Our Space to Yours,' an exhibit that illustrates how modern products are improved by NASA technology. The 10th- and 12th-graders are members of the school's aerospace science class, offered for the first time this year. From left are Bryan Randolph, Branden Anderson, Brandon Dixon and Terry Boyd.

Center director honors Pearl River County mayors

Stennis Space Center Director Bill Parsons, second from right, presented flags flown during Space Shuttle missions to, from left, Poplarville Mayor Billy Spears and Picayune Mayor Greg Mitchell, in appreciation for the communities' support of Stennis Space Center.

Pearl River County Board of Supervisors President Charles Ray Perry (right) received a remote sensing image of Pearl River County from Parsons. The supervisors discussed the strategic plan for the county during the event April 3 in Picayune. Parsons spoke on Stennis' role in the community and the center's economic impact, which totaled \$559 million within a 50-mile radius of the center in 2002.



Special Olympics athletes shine at Stennis



Holley Wallace, Area III Athlete of the Year, delivered the torch marking the official start of the 2003 Special Olympics Games. Wallace has participated in Stennis Space Center's games for more than 20 years. Coordinated by the Naval Oceanographic Office at Stennis, the games had 239 athletes and more than 300 volunteers. About 60 athletes from the SSC games advanced to the Special Olympics State Games to take place at Keesler Air Force Base in Biloxi, May 9-11.



Athlete Becky Stewart carries the American flag as the 2003 Special Olympics Games begin.



Earth Day 2003 celebrated at Stennis

Anne Peek, left, lead of NASA's environmental management staff at Stennis Space Center, speaks with Lockheed Martin Space Operations' Tiffany Dease while attending Stennis' observation of Earth Day on April 22. The theme of the event was 'Understand and Protect Your Home Planet,' reflecting NASA's mission. Exhibitors were NASA's Earth Science Applications Directorate, Mississippi Power Co., the Wildlife Rehabilitation and Nature Preservation Society, Hancock County Community Development, Hancock County Greenways Program, Southern Diversified Products, Mississippi Space Services, the U.S. Army Corps of Engineers, Gulf Regional Planning Commission, GB Tech and EPA's Gulf of Mexico Program. NASA's Environmental Office plans to hold the event annually.

SAFETY
CORNERExercise
safety

SSC employees are encouraged to be physically active and exercise regularly – but all activities have potential risks.

Safety is our most important priority and, as SSC safety policy states, “Everyone working together creates our safe environment.”

Potential benefits of regular exercise include more energy; enhanced ability to perform daily activities; feeling better; assisting with weight control/loss; greater quality of life; reduced risk of numerous diseases; and possibly living a longer, more active life.

To minimize risks, the following are some common-sense recommendations while exercising at SSC:

- Start slowly and progress gradually. Most exercise injuries are caused by doing too much, too soon. Be aware of abnormal responses to exercise.

- All walkers/joggers at SSC are encouraged to wear their badges while on the roads.

- Walkers/joggers should face traffic and run in single file. Move off the road when vehicles approach, and give vehicles the right of way. Avoid high traffic areas and be careful at intersections.

- Proper footwear is essential.

- Wear reflective clothing during early morning and late afternoon.

- Cyclists should wear a helmet, ride with traffic – preferably on the shoulder – and ride single file. Obey all traffic signs and know proper hand signals.

- Exercisers should reduce their intensity during hot and humid weather. Be sure to drink plenty of fluids. Check on SSC weather at <http://www.ssc.nasa.gov/environmental/sscweather/wx.html> to be aware of the temperature, humidity and heat index.

- During summer months, exercise inside or during early morning or late afternoon and wear appropriate clothing. Sunscreen is strongly recommended when exercising outdoors.

Be active, “Test Your Engines Regularly,” and do so safely.

QUICKLOOK

■ **Looking for a chance to get “Fired Up”?** “Test Your Engines” in May by participating in the SSC “Spring Games” held at the Wellness Center. You don’t have to be a member of the Wellness Center to participate. Teams consist of six to 20 employees. Individuals may also participate. Call 8-3950 or e-mail the Wellness Center, wellness.center@ssc.nasa.gov, for more information.

■ **Stennis Child Development Center (SCDC) under new management.** The University of Southern Mississippi (USM) is now managing the Stennis Child Development Center. The new director is Dr. Howard Walters, a senior research associate at USM’s Scott Aquarium. For more information, contact the SCDC at 8-3224.

■ **Job-shadow event to be rescheduled.** A job-shadowing program to be sponsored by NASA’s External Affairs, Office of Education, will be rescheduled. The event, which will bring special-needs students to shadow employees as they work at Stennis, will be rescheduled for October. For more information or to volunteer to help, contact Joy Smith at 8-2118.

■ **Festival needs participants.** The Association for Cultural Awareness needs your help for the SSC International Festival. The association is looking for cultural entertainment, ethnic foods and educational displays. Please contact Jean Rhodes at Jean.rhodes-1@nasa.gov or 8-2079 no later than May 9.



Wilbur and Orville Wright made their historic first flight Dec. 17, 1903. In support of NASA Quest’s Centennial of Flight Project, the Lagniappe offers flight-related trivia questions each issue during the yearlong celebration.

Q. The highest ranking woman in America’s airline industry is a captain for what major carrier?

A. Continental Airlines – On Sept. 23, 1999, Continental Airlines’ Capt. Deborah McCoy became the airline’s senior vice president of Flight Operations, supervising 5,200 pilots and 8,700 flight attendants. The position made her the highest-ranking woman in America’s airline industry.

LAGNIAPPE

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